

1. A compound of Formula I, II or III:



X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, and X<sub>4</sub> are independently selected from the group consisting of hydrogen, alkyl, haloalkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, hydroxyalkyl, alkoxy, alkoxyalkyl, haloalkoxy, alkenyl, alkenoxy, alkenoxyalkyl, alkynyl, alkynyloxy, nitro, halo, hydroxy, cycloalkyl, cycloalkylalkyl, arylalkoxy, arylalkoxyalkyl, haloalkylthio, haloalkylsulfinyl, haloalkylsulfonyl, haloarylalkyl, haloarylalkynyl, alkylsilylalkynyl, aryl, alkynyloxy, anaminocarbonylalkyl, carboxylate, carboxyl, carboxamide, heterocycle, and substituted heterocycle;

R<sup>1</sup> and R<sup>3</sup> are independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, halo, hydroxy, alkoxy, and -O-R<sup>4</sup> where R<sup>4</sup> is a substituted or unsubstituted aryl; with the proviso that R<sup>3</sup> in formula III is not hydroxyl;

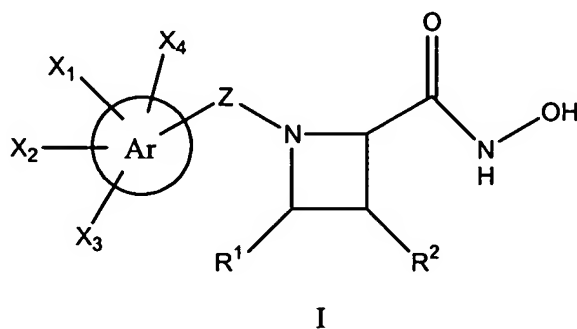
R<sup>2</sup> is selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, halo, hydroxy, alkoxy, and -O-R<sup>4</sup> where R<sup>4</sup> is a substituted or unsubstituted aryl; with the proviso that R<sup>2</sup> in formula III is not hydroxyl;

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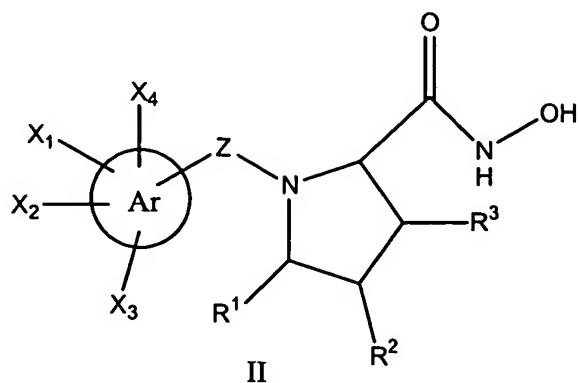
and pharmaceutically acceptable salts thereof, any and all tautomers of Formula I, II or III, as well as prodrugs thereof; and

provided that the compounds of Formula I, II and III have a minimum inhibition concentration of 128  $\mu\text{g/ml}$  or less against at least one of the organisms selected from the group consisting of *Acinetobacter baumannii*, *Acinetobacter haemolyticus*, *Actinobacillus actinomycetemcomitans*, *Aeromonas hydrophila*, *Bacteroides fragilis*, *Bacteroides theataioatamicron*, *Bacteroides distasonis*, *Bacteroides ovatus*, *Bacteroides vulgatus*, *Bordetella pertussis*, *Brucella melitensis*, *Burkholderia cepacia*, *Burkholderia pseudomallei*, *Burkholderia mallei*, *Fusobacterium*, *Prevotella corporis*, *Prevotella intermedia*, *Prevotella endodontalis*, *Porphyromonas asaccharolytica*, *Campylobacter jejuni*, *Campylobacter fetus*, *Citrobacter freundii*, *Citrobacter koseri*, *Edwardsiella tarda*, *Eikenella corrodens*, *Enterobacter cloacae*, *Enterobacter aerogenes*, *Enterobacter agglomerans*, *Escherichia coli*, *Francisella tularensis*, *Haemophilus influenzae*, *Haemophilus ducreyi*, *Helicobacter pylori*, *Kingella kingae*, *Klebsiella pneumoniae*, *Klebsiella oxytoca*, *Klebsiella rhinoscleromatis*, *Klebsiella ozaenae*, *Legionella penumophila*, *Moraxella catarrhalis*, *Morganella morganii*, *Neisseria gonorrhoeae*, *Neisseria meningitidis*, *Pasteurella multocida*, *Plesiomonas shigelloides*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus penneri*, *Proteus myxofaciens*, *Providencia stuartii*, *Providencia rettgeri*, *Providencia alcalifaciens*, *Pseudomonas aeruginosa*, *Pseudomonas fluorescens*, *Salmonella typhi*, *Salmonella paratyphi*, *Serratia marcescens*, *Shigella flexneri*, *Shigella boydii*, *Shigella sonnei*, *Shigella dysenteriae*, *Stenotrophomonas maltophilia*, *Streptobacillus moniliformis*, *Vibrio cholerae*, *Vibrio parahaemolyticus*, *Vibrio vulnificus*, *Vibrio alginolyticus*, *Yersinia enterocolitica*, *Yersinia pestis*, *Yersinia pseudotuberculosis*, *Chlamydia pneumoniae*, *Chlamydia trachomatis*, *Rickettsia prowazekii*, *Coxiella burnetii*, *Ehrlichia chafeensis*, and *Bartonella henselae*.

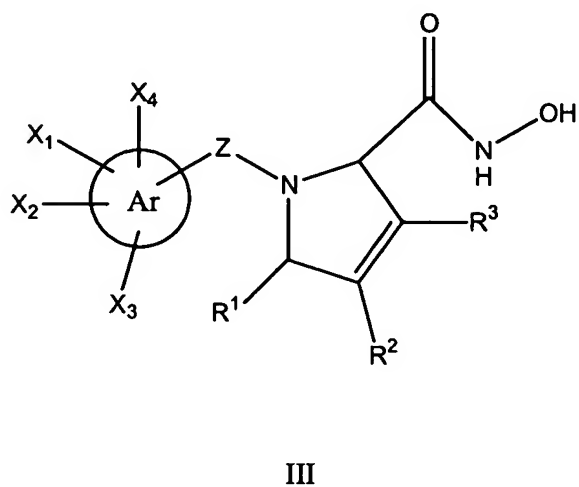
2. The compound according to Claim 1, wherein said compound has the formula I:



3. The compound according to Claim 1, wherein said compound has the formula II:

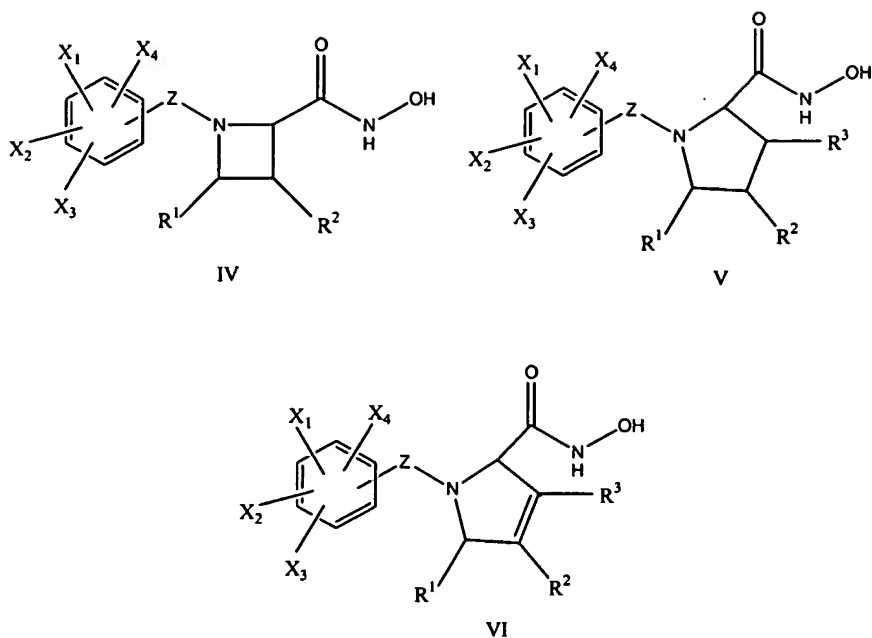


4. The compound according to Claim 1, wherein said compound has the formula III:



III

5. A compound of the Formula IV, V or VI:



wherein:

$X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  are independently selected from the group consisting of hydrogen, alkyl, haloalkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, hydroxyalkyl, alkoxy, alkoxyalkyl, haloalkoxy, alkenyl, alkenoxy, alkenoxyalkyl, alkynyl, alkynyloxy, nitro, halo, hydroxy, cycloalkyl, cycloalkylalkyl, arylalkoxy, arylalkoxyalkyl, haloalkylthio, haloalkylsulfinyl, haloalkylsulfonyl, haloarylalkyl, haloarylalkynyl, alkylsilylalkynyl, aryl, alkynyloxy, anaminocarbonylalkyl, carboxylate, carboxyl, carboxamide, heterocycle, and substituted heterocycle;

$R^1$  and  $R^3$  are independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, halo, hydroxy, alkoxy, and  $-O-R^4$  where  $R^4$  is a substituted or unsubstituted aryl; with the proviso that in Formula VI,  $R^3$  is not hydroxyl

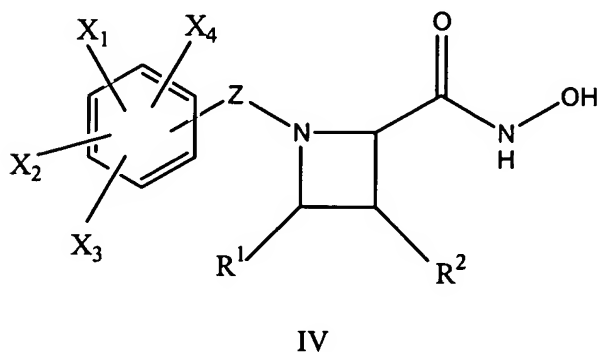
$R^2$  is selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, halo, hydroxy, alkoxy, and  $-O-R^4$  where  $R^4$  is a substituted or unsubstituted aryl; with the proviso that in Formula VII,  $R^2$  is not hydroxyl;

Z is  $-CH_2-$  or  $C(O)$ ;

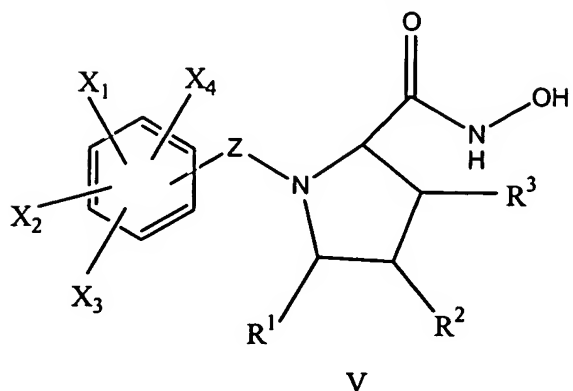
and pharmaceutically acceptable salts thereof, any and all tautomers of Formula I, II or III, as well as prodrugs thereof; and

provided that the compounds of Formula IV, V and VI have a minimum inhibition concentration of 128 µg/ml or less against at least one of the organisms selected from the group consisting of *Acinetobacter baumannii*, *Acinetobacter haemolyticus*, *Actinobacillus actinomycetemcomitans*, *Aeromonas hydrophila*, *Bacteroides fragilis*, *Bacteroides thetaiotaomicron*, *Bacteroides distasonis*, *Bacteroides ovatus*, *Bacteroides vulgatus*, *Bordetella pertussis*, *Brucella melitensis*, *Burkholderia cepacia*, *Burkholderia pseudomallei*, *Burkholderia mallei*, *Fusobacterium*, *Prevotella corporis*, *Prevotella intermedia*, *Prevotella endodontalis*, *Porphyromonas asaccharolytica*, *Campylobacter jejuni*, *Campylobacter fetus*, *Citrobacter freundii*, *Citrobacter koseri*, *Edwardsiella tarda*, *Eikenella corrodens*, *Enterobacter cloacae*, *Enterobacter aerogenes*, *Enterobacter agglomerans*, *Escherichia coli*, *Francisella tularensis*, *Haemophilus influenzae*, *Haemophilus ducreyi*, *Helicobacter pylori*, *Kingella kingae*, *Klebsiella pneumoniae*, *Klebsiella oxytoca*, *Klebsiella rhinoscleromatis*, *Klebsiella ozaenae*, *Legionella pneumophila*, *Moraxella catarrhalis*, *Morganella morganii*, *Neisseria gonorrhoeae*, *Neisseria meningitidis*, *Pasteurella multocida*, *Plesiomonas shigelloides*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus penneri*, *Proteus myxofaciens*, *Providencia stuartii*, *Providencia rettgeri*, *Providencia alcalifaciens*, *Pseudomonas aeruginosa*, *Pseudomonas fluorescens*, *Salmonella typhi*, *Salmonella paratyphi*, *Serratia marcescens*, *Shigella flexneri*, *Shigella boydii*, *Shigella sonnei*, *Shigella dysenteriae*, *Stenotrophomonas maltophilia*, *Streptobacillus moniliformis*, *Vibrio cholerae*, *Vibrio parahaemolyticus*, *Vibrio vulnificus*, *Vibrio alginolyticus*, *Yersinia enterocolitica*, *Yersinia pestis*, *Yersinia pseudotuberculosis*, *Chlamydia pneumoniae*, *Chlamydia trachomatis*, *Rickettsia prowazekii*, *Coxiella burnetii*, *Ehrlichia chaffeensis*, and *Bartonella henselae*.

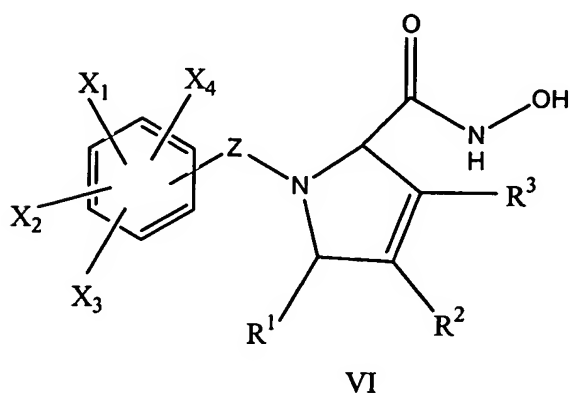
6. The compound according to Claim 5, wherein said compound has the formula IV:



7. The compound according to Claim 5, wherein said compound has the formula V:



8. The compound according to Claim 5, wherein said compound has the formula VI:



9. The compound according to Claim 1, wherein Ar is selected from the group consisting of phenyl and 2,5-dihydro-benzo[*b*]oxepine.

10. The compound according to Claim 1, wherein (X<sub>1</sub>)-(X<sub>2</sub>)-(X<sub>3</sub>)-(X<sub>4</sub>)-Ar- is selected from the group consisting of:

3,4-dimethoxy-5-propylphenyl;  
 9-methoxy-2,5-dihydro-benzo[*b*]oxepine;  
 3-allyl-4-allyloxy-5-methoxyphenyl;  
 3,4,5-triethoxyphenyl;  
 3,4,5-trimethoxyphenyl;  
 3,5-dimethyl-4-nitrophenyl;  
 3,5-dimethoxy-4-methylphenyl;  
 3-(3-hydroxypropyl)-4,5-dimethoxyphenyl;  
 3-trifluoromethoxyphenyl;  
 3,5-dibromo-4-methylphenyl;  
 3-methoxy-4-methylphenyl;

3,5-dimethylphenyl;  
4-hydroxy-3-methoxy-5-propylphenyl;  
3-(3-allyloxypropyl)-4,5-dimethoxyphenyl;  
3-(3-benzyloxypropyl)-4,5-dimethoxyphenyl;  
3,4-dimethoxy-5-(3-propoxypropyl)phenyl;  
3-cyclopropylmethyl-4,5-dimethoxyphenyl;  
3-hexyl-4,5-dimethoxyphenyl;  
3,4-dimethoxy-5-pentylphenyl;  
3-allyl-4-hydroxy-5-methoxyphenyl;  
4-methoxy-3-trifluoromethoxyphenyl;  
3-propylphenyl;  
3-allylphenyl;  
4-allyloxy-3-trifluoromethoxyphenyl;  
3-trifluoromethylphenyl;  
3,4-dimethoxy-5-(3-methoxypropyl)phenyl;  
3-(3-ethoxypropyl)-4,5-dimethoxyphenyl;  
3-allyl-4,5-dimethoxyphenyl;  
3-butyl-4,5-dimethoxyphenyl;  
3,4-dimethoxy-5-(3,3,3-trifluoropropyl)phenyl;  
3-dimethylcarbamoylmethyl-4,5-dimethoxyphenyl;  
3,5-dibromo-4-methoxyphenyl;  
3-iodo-4,5-dimethoxyphenyl;  
3-(3-fluoropropyl)-4,5-dimethoxyphenyl;  
3-trifluoromethylthiophenyl;  
4-trifluoromethylthiophenyl;  
3-trifluoromethylsulfinylphenyl;  
3-(1-fluoropropyl)-4,5-dimethoxyphenyl;  
3-ethynyl-4,5-dimethoxyphenyl;  
4-methylthio-3-trifluoromethoxyphenyl;  
4-methoxy-3-propylphenyl;  
3-(2,2,2-trifluoroethylthio)phenyl;  
3-pentafluoroethylthiophenyl;  
3,5-diallyl-4-methoxyphenyl;  
3-trifluoromethoxy-4-methoxy-5-propylphenyl;  
3-bromo-4,5-dimethoxyphenyl;

3,4-dimethoxy-5-prop-1-ynylphenyl;  
 3,4-dimethoxy-5-(2,2,2-trifluoroethoxy)phenyl;  
 4-methoxy-3,5-dipropylphenyl;  
 3-methoxy-5-propylphenyl;  
 4-methoxy-3-trifluoromethylthiophenyl;  
 3-(1,2,2,2-tetrafluoro-1-trifluoromethyl)ethylthiophenyl;  
 3,5-bis-trifluoromethylthiophenyl;  
 3-methoxy-5-trifluoromethylthiophenyl;  
 4-methoxy-3-propyl-5-trifluoromethylthiophenyl;  
 3,4-dimethoxy-5-trifluoromethylthiophenyl;  
 4-allyloxy-3-trifluoromethylthiophenyl;  
 4-*n*-propoxy-3-trifluoromethylthiophenyl;  
 4-*n*-but-3-enyloxy-3-trifluoromethylthiophenyl;  
 4-*n*-butoxy-3-trifluoromethylthiophenyl;  
 4-(3-methylbut-2-enyloxy-3-trifluoromethylthiophenyl);  
 4-(3-fluorophenethyl)-3-trifluoromethylthiophenyl;  
 4-*n*-pentyl-3-trifluoromethylthiophenyl;  
 3-trifluoromethylthio-4-(trimethylsilanylethynyl)phenyl;  
 4-ethynyl-3-trifluoromethylthiophenyl;  
 4-allyl-3-trifluoromethylthiophenyl;  
 4-*n*-propyl-3-trifluoromethylthiophenyl;  
 3-trifluoromethylthio-4-vinylphenyl;  
 4-ethyl-3-trifluoromethylthiophenyl;  
 4-propargyloxy-3-trifluoromethylthiophenyl;  
 3-trifluoromethoxy-4-trifluoromethylthiophenyl;  
 4-ethoxy-3-trifluoromethylthiophenyl;  
 4-(2,2,2-trifluoroeth-1-yloxy)-3-trifluoromethylthiophenyl;  
 3,4-dimethoxy-5-phenylphenyl;  
 3-trifluoromethoxy-4-vinylphenyl;  
 4-benzyloxy-3-trifluoromethylthiophenyl;  
 3-(3-fluorophenylethynyl)-4,5-dimethoxyphenyl; and  
 4-ethyl-3-trifluoromethoxyphenyl.

11. The compound according to Claims 1 or 5, wherein R<sup>2</sup> is selected from the group consisting of hydrogen, alkyl, alkoxy, haloalkyl, hydroxyl, aryl, substituted aryl, and alkynyl.



12. The compound according to Claims 1 or 5, wherein R<sup>2</sup> is selected from the group consisting of  $\alpha$ -ethyl,  $\alpha$ -fluoro,  $\alpha$ -hydroxy,  $\beta$ -methoxy,  $\beta$ -fluoro,  $\beta$ -trifluoromethyl,  $\alpha$ -naphth-2-yloxy,  $\alpha$ -(4-biphenyloxy),  $\beta$ -(4-biphenyloxy), and ethynyl.

13. A compound selected from the group consisting of:

1-(3,4-dimethoxy-5-propylbenzoyl)pyrrolidine-2R-carboxylic acid hydroxyamide;

1-(3,4-dimethoxy-5-propylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(9-methoxy-2,5-dihydro-benzo[b]oxepine-7-carbonyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-allyl-4-allyloxy-5-methoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4,5-triethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4,5-trimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4-dimethoxy-5-propylbenzyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,5-dimethyl-4-nitrobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,5-dimethoxy-4-methylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-[3-(3-hydroxypropyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;

1-(3-trifluoromethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,5-dibromo-4-methylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-methoxy-4-methylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,5-dimethylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(4-hydroxy-3-methoxy-5-propylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-[3-(3-allyloxy-propyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;

1-[3-(3-benzyloxy-propyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;

1-[3,4-dimethoxy-5-(3-propoxypropyl)benzoyl]azetidine-2R-carboxylic acid hydroxyamide;

1-(3-cyclopropylmethyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-hexyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4-dimethoxy-5-pentylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-allyl-4-hydroxy-5-methoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(4-methoxy-3-trifluoromethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-propylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-allylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(4-allyloxy-3-trifluoromethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-trifluoromethylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3,4-dimethoxy-5-(3-methoxypropyl)benzoyl]azetidine-2R-carboxylic acid  
 hydroxyamide;  
 1-[3-(3-ethoxypropyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-allyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-butyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3,4-dimethoxy-5-(3,3,3-trifluoropropyl)benzoyl]azetidine-2R-carboxylic acid  
 hydroxyamide;  
 1-(3-dimethylcarbamoylmethyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid  
 hydroxyamide;  
 1-(3,5-dibromo-4-methoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-iodo-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3-(3-fluoropropyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(4-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-trifluoromethanesulfinylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3-(1-fluoropropyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-ethynyl-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(4-methylthio-3-trifluoromethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(4-methoxy-3-propylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3-(2,2,2-trifluoroethylthio)benzoyl]azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-pentafluoroethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3,5-diallyl-4-methoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-trifluoromethoxy-4-methoxy-5-propylbenzoyl)azetidine-2R- carboxylic acid  
 hydroxyamide;  
 1-(3-bromo-4,5-dimethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3,4-dimethoxy-5-prop-1-ynylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-[3,4-dimethoxy-5-(2,2,2-trifluoroethoxy)benzoyl]azetidine-2R-carboxylic acid  
 hydroxyamide;  
 1-(4-methoxy-3,5-dipropylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(3-methoxy-5-propylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide;  
 1-(4-methoxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-[3-(1,2,2,2-tetrafluoro-1-trifluoromethylethylthio)benzoyl]azetidine-2R-carboxylic acid hydroxyamide;

1-(3,5-bis-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3-methoxy-5-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(4-methoxy-3-propyl-5-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide;

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4S-fluoropyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4S-hydroxypyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4R-methoxypyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4R-fluoropyrrolidine-2R-carboxylic acid hydroxyamide

1-(3-trifluoromethylthiobenzoyl)pyrrolidine-2R-carboxylic acid hydroxyamide

1-(3-methoxy-5-trifluoromethylthiobenzoyl)pyrrolidine-2R-carboxylic acid hydroxyamide

1-(4-methoxy-3-trifluoromethylthiobenzoyl)pyrrolidine-2R-carboxylic acid hydroxyamide

1-(4-methoxy-3-propyl-5-trifluoromethylthiobenzoyl)pyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-pyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4R-trifluoromethyl-pyrrolidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylsufanyl-benzoyl)-4-trifluoromethyl-2,5-dihydro-1H-pyrrole-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4-ethynyl-2,5-dihydro-1H-pyrrole-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-2,5-dihydro-1H-pyrrole-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4S-(naphthalen-2-yloxy)pyrrolidine-2R-carboxylic acid hydroxyamide

4S-(biphenyl-4-yloxy)-1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-pyrrolidine-2R-carboxylic acid hydroxyamide

4R-(biphenyl-4-yloxy)-1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-pyrrolidine-2R-carboxylic acid hydroxamide

1-(4-allyloxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-propoxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-but-3-enyloxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-butoxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-[4-(3-methyl-but-2-enyloxy)-3-trifluoromethylthiobenzoyl]azetidine-2R-carboxylic acid hydroxyamide

1-{4-[2-(3-fluorophenyl)ethyl]-3-trifluoromethylthiobenzoyl}azetidine-2R-carboxylic acid hydroxyamide

1-(4-pentyl-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-[3-trifluoromethylthio-4-(trimethylsilanylethynyl)benzoyl]azetidine-2R-carboxylic acid hydroxyamide

1-(4-ethynyl-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-allyl-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-propyl-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-methoxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(3,4-dimethoxy-5-trifluoroethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(3-trifluoromethylthio-4-vinylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-ethyl-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-prop-2-ynyloxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(3-trifluoromethoxy-4-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-ethoxy-3-trifluoromethylthiobenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-[4-(2,2,2-trifluoroethoxy)-3-trifluoromethylthiobenzoyl]-azetidine-2R-carboxylic acid hydroxyamide

(±)-trans-1-(3,4-dimethoxy-5-propylbenzoyl)-3-ethylazetidine-2-carboxylic acid hydroxyamide

1-(5,6-dimethoxybiphenyl-3-carbonyl)azetidine-2R-carboxylic acid hydroxyamide

1-[3-(3-fluorophenylethynyl)-4,5-dimethoxybenzoyl]azetidine-2R-carboxylic acid hydroxyamide

1-(3-trifluoromethoxy-4-vinylbenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-ethyl-3-trifluoromethoxybenzoyl)azetidine-2R-carboxylic acid hydroxyamide

1-(4-benzyloxy-3-trifluoromethylthiobenzoyl)-azetidine-2R-carboxylic acid

hydroxyamide;

1-(3,4-dimethoxy-5-trifluoromethylthiobenzoyl)-4,4-difluoropyrrolidine-2R-carboxylic acid hydroxyamide;

and pharmaceutically acceptable salts thereof as well as any and all tautomers thereof.

14. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of one or more of a compound of claim 1.

15. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of one or more of a compound of claim 5.

16. The pharmaceutical composition according to Claim 14 further comprising one or more additional antibacterial agents.

17. The pharmaceutical composition according to Claim 15 further comprising one or more additional antibacterial agents.

18. The pharmaceutical composition according to Claims 16 or 17, wherein said antibacterial agent is active against gram negative bacteria.

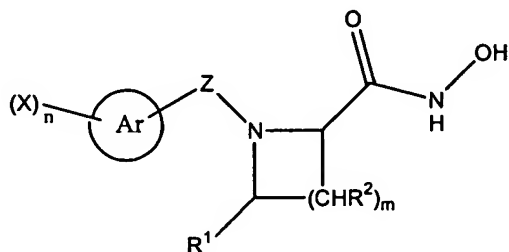
19. The pharmaceutical composition according to Claims 16 or 17, wherein said antibacterial agent is active against gram positive bacteria.

20. A method for the treatment of a microbial infection in a mammal, comprising administering to said mammal a therapeutically effective amount of one or more of a compound of claim 1.

21. A method for the treatment of a microbial infection in a mammal, comprising administering to said mammal a therapeutically effective amount of one or more of a compound of Claim 5.

22. A method for the treatment of a microbial infection in a mammal comprising administering to said mammal, a pharmaceutical composition of Claim 14.

23. A method for the treatment of a microbial infection in a mammal comprising administering to said mammal, a pharmaceutical composition of Claim 15.
24. The method according to Claims 22 or 23, wherein said composition is administered in combination with one or more additional antibacterial agents.
25. The method according to Claim 24, wherein said infection is a gram negative infection.
26. The method according to Claim 25, wherein said antibacterial agent is active against gram negative bacteria.
27. The method according to Claim 24, wherein said infection is a gram positive infection.
28. The method according to Claim 27, wherein said antibacterial agent is active against gram positive bacteria.
29. The method according to Claims 22 or 23, wherein said compound is administered to the mammal orally, parenterally, transdermally, topically, rectally, or intranasally.
30. The method according to Claims 22 or 23, wherein said composition is administered in an amount of from about 0.1 to about 100 mg/kg of body weight/day.
31. A compound of formula (I):



wherein:

Ar is an aryl or heteroaryl ring;

X is selected from the group consisting of alkyl, haloalkyl, alkylthio, hydroxyalkyl, alkoxy, alkoxyalkyl, haloalkoxy, alkenyl, alkenoxy, alkenoxyalkyl,

alkynyl, nitro, halo, hydroxyl, cycloalkyl, cycloalkylalkyl, arylalkoxy, arylalkoxyalkyl, haloalkylthio, haloalkyl-sulfinyl, and aminocarboxyalkyl;

R<sup>1</sup> is selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

R<sup>2</sup> is selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkynyl, cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

n is an integer from 1 to 4;

Z is -CH<sub>2</sub>- or C(O);

m is an integer from 1 to 2;

and pharmaceutically acceptable salts thereof;

provided that when m is 2, then R<sup>2</sup> is H; and

provided that the compound of formula I has a minimum inhibition concentration of 128 µg/ml or less against at least one of the organisms selected from the group consisting of *Acinetobacter baumannii*, *Acinetobacter haemolyticus*, *Actinobacillus actinomycetemcomitans*, *Aeromonas hydrophila*, *Bacteroides fragilis*, *Bacteroides theataioatamicron*, *Bacteroides distasonis*, *Bacteroides ovatus*, *Bacteroides vulgatus*, *Bordetella pertussis*, *Brucella melitensis*, *Burkholderia cepacia*, *Burkholderia pseudomallei*, *Burkholderia mallei*, *Fusobacterium*, *Prevotella corporis*, *Prevotella intermedia*, *Prevotella endodontalis*, *Porphyromonas asaccharolytica*, *Campylobacter jejuni*, *Campylobacter fetus*, *Citrobacter freundii*, *Citrobacter koseri*, *Edwardsiella tarda*, *Eikenella corrodens*, *Enterobacter cloacae*, *Enterobacter aerogenes*, *Enterobacter agglomerans*, *Escherichia coli*, *Francisella tularensis*, *Haemophilus influenzae*, *Haemophilus ducreyi*, *Helicobacter pylori*, *Kingella kingae*, *Klebsiella pneumoniae*, *Klebsiella oxytoca*, *Klebsiella rhinoscleromatis*, *Klebsiella ozaenae*, *Legionella pneumophila*, *Moraxella catarrhalis*, *Morganella morganii*, *Neisseria gonorrhoeae*, *Neisseria meningitidis*, *Pasteurella multocida*, *Plesiomonas shigelloides*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus penneri*, *Proteus myxofaciens*, *Providencia stuartii*, *Providencia rettgeri*, *Providencia alcalifaciens*, *Pseudomonas aeruginosa*, *Pseudomonas fluorescens*, *Salmonella typhi*, *Salmonella paratyphi*, *Serratia marcescens*, *Shigella flexneri*, *Shigella boydii*, *Shigella sonnei*, *Shigella dysenteriae*, *Stenotrophomonas maltophilia*, *Streptobacillus moniliformis*, *Vibrio cholerae*, *Vibrio parahaemolyticus*, *Vibrio vulnificus*, *Vibrio alginolyticus*,

*Yersinia enterocolitica*, *Yersinia pestis*, *Yersinia pseudotuberculosis*, *Chlamydia pneumoniae*, *Chlamydia trachomatis*, *Rickettsia prowazekii*, *Coxiella burnetii*, *Ehrlichia chafeenis*, and *Bartonella henselae*.